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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,794	07/02/2007	Johan Einar Hustad	BRYN/0013	8990
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EXAMINER				
BERNSTEIN, DANIEL A				
ART UNIT		PAPER NUMBER		
3743				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/566,794

Applicant(s)

HUSTAD, JOHAN EINAR

Examiner

DANIEL A. BERNSTEIN

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____
- Paper No(s)/Mail Date ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 recites the limitation "**the stove's combustion chamber**". There is insufficient antecedent basis for this limitation in the claim.
3. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,964,397 to Purcell et al. (Purcell) in view of NO 63947 to Cappelen and in further view of US 4,502,395 to Barnett (Barnett).

In reference to claim 5

Purcell discloses an afterburner device (intermediate wall member 40 which is installed into the firebox 22) for stoves for burning biomass, coke or coal, supplying fresh, heated air to an upper zone (openings 80 deliver air to the upper zone of 22) of the stove's combustion chamber (22) in the stove (fireplace 20), wherein the device is constituted by a plate (72, see Fig. 5). Purcell does not teach that 40 is folded to form a

chamber when installed on the inner side of a side or rear wall of an existing traditional stove.

Cappelen teaches a device that is folded to form a chamber when installed on the inner side of a side or rear wall of an existing traditional stove (see Fig. 1, 2 and 3 of Cappelen where chamber 16 is formed by a folded plate).

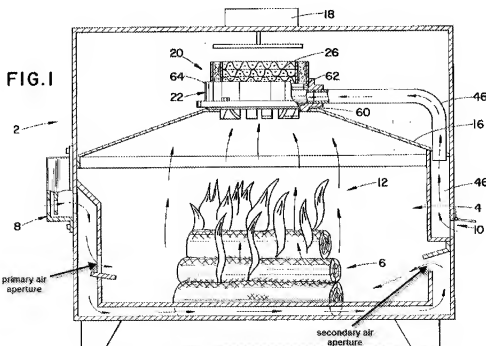
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine Purcell with Cappelen for the purpose of integrating the afterburning device on a side wall of an existing stove. The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options for constructing the device of Purcell within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary common sense.

Purcell teaches that 40 has a chamber (air space 74, Fig. 5). Purcell does not teach that the existing traditional stove (20) is provided with at least one secondary air aperture providing communication between ambient air and the chamber near the bottom of said chamber.

Barnett teaches a combustion chamber that as at least one secondary air aperture (secondary air aperture, see annotated Fig. 1 below) providing communication between ambient air (ambient air enters at 8 and is introduced through the secondary air aperture of Barnett substantially towards the bottom of the chamber) and the chamber near the bottom of said chamber.

Purcell teaches that the plate is provided with at least one first hole (openings 76 which are in communication with 22) in communication with said combustion chamber (22) near the bottom of said chamber (the holes 76 are located towards the bottom of the chamber).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine Purcell with Barnet for the purpose of introducing a second stream of air so that more air could be delivered through holes 76 of Purcell. All of the claimed elements were known in prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.



In reference to claim 6

Purcell in view of Barnett discloses the afterburner device according to claim 5, wherein the plate has at least one second hole (see Fig. 4 where there are six holes 80 in the plate 40A) in communication with said upper zone (when installed in a stove, 40A would be capable of delivering air to the upper zone of the stove's combustion chamber) of the stove's combustion chamber near the top of said chamber, whereby air drawn in through the at least one secondary air aperture is pre-heated while rising up behind the plate (when air enters holes 76 from behind the plate, see Fig. 5, the air would inherently preheat due to the fact that 40A is hot and in close proximity to primary combustion in the stove) within said chamber, and is expelled through the at least one second hole (air exits holes 80 see Fig. 4) into the upper zone of the stove's combustion chamber (see Fig. 2 where 40 is shown installed in a stove, based on Fig. 2, air would be delivered to the upper zone of the combustion chamber).

In reference to claim 8

Purcell in view of Barnett discloses the afterburner device according to claim 5, wherein the plate consists of two parts (see Fig. 8) which can be mutually displaced to provide an adjustable dimension in a lateral direction (90 and 94) when installed, for adaptation to stoves of different sizes (Col. 5 lines 56-68 and Col. 6 lines 1-10).

6. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell in view of Barnett and in further view of NO 63947 to Cappelen (Cappelen).

In Reference to Claim 7

Purcell in view of Barnett the afterburner device according to claim 5, but does not teach that at least one first hole establishes and maintains a pilot flame.

Cappelen teaches a plate (15) that is provided with holes (18) near a folded end of a plate (Fig. 5) where the holes (18) are arranged towards the bottom edge when installed (see Fig. 3) in order to sustain combustion over the furnace chamber's entire length (see Cappelen translation page 4, third paragraph).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the holes (18) of Cappelen arranged towards the bottom edge of the plate of Purcell for the purpose of sustaining combustion over the furnace chamber's entire length as explicitly taught by Cappelen. Since the holes would be positioned in the same location as applicant's, they would inherently establish and maintain a pilot flame.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL A. BERNSTEIN whose telephone number is (571)270-5803. The examiner can normally be reached on Monday-Friday 8:00 AM - 5:00 PM EDT.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Rinehart can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAB

/Kenneth B Rinehart/
Supervisory Patent Examiner, Art Unit 3743

